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EXAMINER

LEE, EDMUND H

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 06/18/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/737,067

Applicant(s)

MURPHY, DANIEL

Examiner

EDMUND H LEE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 12, 13, 15, 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Boehm et al (USPN 6103166). Boehm et al teach the claimed process as evidenced at col 3, Ins 55-58; col 5, Ins 42-45; figs 1-3b.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masutani (USPN 6213897) in view of Yamagishi et al (USPN 6508726). In regard to claim 1, Masutani teach the basic claimed process including a method of making a golf ball (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2); providing a mold having a plurality of protrusion depressions on an inner surface of the mold wherein the depression have a width of from about 0.09 to about 0.18 inches and a depth of about 0.02 to about 0.06 inches (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2); molding a center assembly having a plurality of outwardly

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extending protrusions from the mold (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2); and molding a cover about the center assembly having the plurality of outwardly extending protrusions to thereby obtain a golf ball (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2). However, Masutani does not teach forming the plurality of protrusion depressions. Yamagishi et al teach forming a layer on a golf ball center (col 4, Ins 34-43); forming protrusions on an inner cover layer by molding within a cavity having recesses on an inner surface thereof (col 4, Ins 34-43); forming the recesses by a cutting method such as electrical discharge machining or numerical control machining (col 4, Ins 34-43). Masutani and Yamagishi et al are combinable because they are analogous with respect to forming a layer of a golf ball having a plurality of protrusions thereon. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the protrusion depressions of Masutani by the cutting method of Yamagishi et al in order to effectively form depressions in the mold of Masutani. In regard to claims 2-6, Masutani teaches using two molds each defining a concave molding surface having a plurality of protrusion depressions on the molding surface (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2); using protrusion depressions selected from the group consisting of convex, angled, and stepped (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2); and molding an inner cover layer about the center assembly and molding an outer cover layer about the inner cover layer (col 4, Ins 45-50; col 5, Ins 10-13, 30-37 and 55-67; col 6, Ins 57-59; fig 2). However, Masutani does not teach compression molding at the claimed specifications; and forming the protrusion depressions by one of

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the claimed techniques. In regard to compression molding at the claimed specification, it is well-known in the golf ball molding art to compression mold a cover layer. Further, molding parameters such as temperature and pressure are well-known in the molding art as important molding parameters and the desired temperature and pressure would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature and pressure are generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to compression mold the center assembly of Masutani at the claimed specifications in order to form a high quality golf ball. In regard to forming the depressions by one of the claimed techniques, such was taught by the above combined teachings of Masutani and Yamagishi et al.

5. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masutani (USPN 6213897) in view of Yamagishi et al (USPN 6508726). In regard to claim 7, Masutani teach the basic claimed process including a method of making a golf ball (col 4, lns 45-50; col 5, lns 30-37 and 55-67; col 6, lns 57-59; fig 2); molding a spherical center (col 3, ln 25-col 4, ln 5); providing a mold having a plurality of protrusion depressions on an inner surface of the mold wherein the depression have a width of from about 0.09 to about 0.18 inches and a depth of about 0.02 to about 0.06 inches (col 4, lns 45-50; col 5, lns 30-37 and 55-67; col 6, lns 57-59; fig 2); positioning the center within the mold having the plurality of protrusion depressions (col 4, lns 45-50; col 5, lns 10-13, 30-37 and 55-67; col 6, lns 57-59; fig 2); molding a mantle layer about

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the center in the mold to form a center assembly having a plurality of outwardly extending protrusions (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2); and molding a cover about the mantle layer (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2). However, Masutani does not teach forming the plurality of protrusion depressions. Yamagishi et al teach forming a layer on a golf ball center (col 4, Ins 34-43); forming protrusions on an inner cover layer by molding within a cavity having recesses on an inner surface thereof (col 4, Ins 34-43); forming the recesses by a cutting method such as electrical discharge machining or numerical control machining (col 4, Ins 34-43). Masutani and Yamagishi et al are combinable because they are analogous with respect to forming a layer of a golf ball having a plurality of protrusions thereon. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the protrusion depressions of Masutani by the cutting method of Yamagishi et al in order to effectively form depressions in the mold of Masutani. In regard to claims 8-11, Masutani teaches using protrusion depressions selected from the group consisting of convex, angled, and stepped (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2); and molding a first cover layer about the mantle layer and molding a second cover layer about the first cover layer (col 4, Ins 45-50; col 5, Ins 10-13, 30-37 and 55-67; col 6, Ins 57-59; fig 2). However, Masutani does not teach injection molding at the claimed specifications; and forming the protrusion depressions by one of the claimed techniques. In regard to injection molding at the claimed specification, molding parameters such as temperature and duration are well-known in the molding art as important molding parameters and the desired temperature

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and duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature and duration are generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to injection mold the mantle layer of Masutani at the claimed specifications in order to form a high quality golf ball. In regard to forming the depressions by one of the claimed techniques, such was taught by the above combined teachings of Masutani and Yamagishi et al.

6. Claims 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masutani (USPN 6213897) in view of Yamagishi et al (USPN 6508726). In regard to claim 12, Masutani teach the basic claimed process including a method of making a golf ball (col 4, lns 45-50; col 5, lns 30-37 and 55-67; col 6, lns 57-59; fig 2); providing a mold having a plurality of protrusion depressions on an inner surface of the mold wherein the depression have a depth of about 0.02 to about 0.06 inches (col 4, lns 45-50; col 5, lns 30-37 and 55-67; col 6, lns 57-59; fig 2); producing a center assembly having a plurality of outwardly extending protrusions from the mold (col 4, lns 45-50; col 5, lns 30-37 and 55-67; col 6, lns 57-59; fig 2); forming a mantle layer about the center assembly having the outwardly extending protrusions (col 4, lns 45-50; col 5, lns 10-13, 30-37 and 55-67; col 6, lns 57-59; fig 2); and producing a cover about the mantle layer to thereby obtain a golf ball (col 4, lns 45-50; col 5, lns 30-37 and 55-67; col 6, lns 57-59; fig 2). However, Masutani does not teach forming the plurality of protrusion depressions. Yamagishi et al teach forming a layer on a golf ball center (col 4, lns 34-

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43); forming protrusions on an inner cover layer by molding within a cavity having recesses on an inner surface thereof (col 4, lns 34-43); forming the recesses by a cutting method such as electrical discharge machining or numerical control machining (col 4, lns 34-43). Masutani and Yamagishi et al are combinable because they are analogous with respect to forming a layer of a golf ball having a plurality of protrusions thereon. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the protrusion depressions of Masutani by the cutting method of Yamagishi et al in order to effectively form depressions in the mold of Masutani. In regard to claims 13-16, Masutani teaches using two molds each defining a concave molding surface having a plurality of protrusion depressions on the molding surface (col 4, lns 45-50; col 5, lns 30-37 and 55-67; col 6, lns 57-59; fig 2); using protrusion depressions selected from the group consisting of convex, angled, and stepped (col 4, lns 45-50; col 5, lns 30-37 and 55-67; col 6, lns 57-59; fig 2); and forming a first inner cover layer about the mantle and forming an outer cover layer about the first inner cover layer (col 4, lns 45-50; col 5, lns 10-13, 30-37 and 55-67; col 6, lns 57-59; fig 2). However, Masutani does not teach compression molding at the claimed specifications; and forming the protrusion depressions by one of the claimed techniques. In regard to compression molding at the claimed specification, it is well-known in the golf ball molding art to compression mold a cover layer. Further, molding parameter such as temperature is well-known in the molding art as an important molding parameter and the desired temperature would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the

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time the invention was made. Further, the claimed temperature is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to compression mold the cover assembly of Masutani at the claimed specifications in order to form a high quality golf ball. In regard to forming the depressions by one of the claimed techniques, such was taught by the above combined teachings of Masutani and Yamagishi et al.

7. Claims 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masutani (USPN 6213897) in view of Yamagishi et al (USPN 6508726). In regard to claim 18, Masutani teach the basic claimed process including a method of making a golf ball (col 4, lns 45-50; col 5, lns 30-37 and 55-67; col 6, lns 57-59; fig 2); molding a spherical center (col 3, ln 25-col 4, ln 5); providing a mold having a plurality of protrusion depressions on an inner surface of the mold wherein the depression have a width of from about 0.09 to about 0.18 inches (col 4, lns 45-50; col 5, lns 30-37 and 55-67; col 6, lns 57-59; fig 2); positioning the center within the mold having the plurality of protrusion depressions (col 4, lns 45-50; col 5, lns 10-13, 30-37 and 55-67; col 6, lns 57-59; fig 2); molding mantle layer about the center to form a center assembly having a plurality of outwardly extending protrusions (col 4, lns 45-50; col 5, lns 30-37 and 55-67; col 6, lns 57-59; fig 2); molding an intermediate layer about the center assembly having the outwardly extending protrusions (col 4, lns 45-50; col 5, lns 10-13, 30-37 and 55-67; col 6, lns 57-59; fig 2); and molding a cover about the intermediate layer to thereby obtain a golf ball (col 4, lns 45-50; col 5, lns 30-37 and 55-67; col 6, lns 57-59; fig 2). However, Masutani does not teach forming the plurality of protrusion depressions. Yamagishi et

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al teach forming a layer on a golf ball center (col 4, Ins 34-43); forming protrusions on an inner cover layer by molding within a cavity having recesses on an inner surface thereof (col 4, Ins 34-43); forming the recesses by a cutting method such as electrical discharge machining or numerical control machining (col 4, Ins 34-43). Masutani and Yamagishi et al are combinable because they are analogous with respect to forming a layer of a golf ball having a plurality of protrusions thereon. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the protrusion depressions of Masutani by the cutting method of Yamagishi et al in order to effectively form depressions in the mold of Masutani. In regard to claims 19-23, Masutani teaches using two molds each defining a concave molding surface having a plurality of protrusion depressions on the molding surface (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2); using protrusion depressions selected from the group consisting of convex, angled, and stepped (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2); and molding a first cover layer about the intermediate layer and molding a second cover layer about the first cover layer (col 4, Ins 45-50; col 5, Ins 10-13, 30-37 and 55-67; col 6, Ins 57-59; fig 2). However, Masutani does not teach compression molding at the claimed specifications; and forming the protrusion depressions by one of the claimed techniques. In regard to compression molding at the claimed specification, it is well-known in the golf ball molding art to compression mold a cover layer. Further, molding parameter such as temperature is well-known in the molding art as an important molding parameter and the desired temperature would have been obviously and readily determined through routine experimentation by one having

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ordinary skill in the art at the time the invention was made. Further, the claimed temperature is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to compression mold the center assembly of Masutani at the claimed specifications in order to form a high quality golf ball. In regard to forming the depressions by one of the claimed techniques, such was taught by the above combined teachings of Masutani and Yamagishi et al.

8. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masutani (USPN 6213897) in view of Yamagishi et al (USPN 6508726). In regard to claim 24, Masutani teach the basic claimed process including a method of making a golf ball (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2); providing a first die defining a first hemispherical molding surface (col 4, Ins 45-50; col 5, Ins 10-13, 30-37 and 55-67; col 6, Ins 57-59; fig 2) ; providing a second die defining a second hemispherical molding surface, the second die adapted to engage with the first die such that the first molding surface and second molding surface align with each other to form a spherical molding surface adapted to form a golf ball component (col 4, Ins 45-50; col 5, Ins 10-13, 30-37 and 55-67; col 6, Ins 57-59; fig 2); providing a mold having a plurality of protrusion depressions on an inner surface of the mold wherein the depression have a width of from about 0.09 to about 0.18 inches and a depth of about 0.02 to about 0.06 inches (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2); positioning the first and second dies together to form a generally spherical molding cavity defining the plurality of protrusion depressions therein (col 4, Ins 45-50; col 5, Ins 10-13, 30-37

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and 55-67; col 6, Ins 57-59; fig 2); molding a center assembly in the molding cavity (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2); and forming a cover about the center assembly to thereby obtain a golf ball (col 4, Ins 45-50; col 5, Ins 30-37 and 55-67; col 6, Ins 57-59; fig 2). However, Masutani does not teach machining the plurality of protrusion depressions. Yamagishi et al teach forming a layer on a golf ball center (col 4, Ins 34-43); forming protrusions on an inner cover layer by molding within a cavity having recesses on an inner surface thereof (col 4, Ins 34-43); forming the recesses by a cutting method such as electrical discharge machining or numerical control machining (col 4, Ins 34-43). Masutani and Yamagishi et al are combinable because they are analogous with respect to forming a layer of a golf ball having a plurality of protrusions thereon. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to machine the protrusion depressions of Masutani by the cutting method of Yamagishi et al in order to effectively form depressions in the mold of Masutani. In regard to claim 25, it is well-known in the golf ball molding art to compression mold a cover layer. Further, molding parameters such as temperature and pressure are well-known in the molding art as important molding parameters and the desired temperature and pressure would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature and pressure are generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to compression mold the center assembly of Masutani at the claimed specifications in order to form a high quality

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golf ball. In regard to claim 26, Masutani teaches injection molding (col 4, lns 45-50; col 5, lns 10-13, 30-37 and 55-67; col 6, lns 57-59; fig 2). Molding parameters such as temperature and duration are well-known in the molding art as important molding parameters and the desired temperature and duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature and duration are generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to injection mold the center assembly of Masutani at the claimed specifications in order to form a high quality golf ball.

9. Claims 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boehm et al (USPN 6103166) as applied to claim 12 above. However, Boehm et al does not teach compression molding at the claimed specifications; and forming the depressions by the claimed techniques. In regard to compression molding at the claimed specification, it is well-known in the golf ball molding art to compression mold a layer. Further, molding parameter such as temperature is well-known in the molding art as an important molding parameter and the desired temperature would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to compression mold the center assembly of Boehm et al at the claimed specifications in order to form


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a high quality golf ball. In regard to forming the depressions by the claimed techniques, such is well-known in the golf ball art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the depressions of Boehm et al by any of the well-known claimed techniques in order to form precise depressions.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDMUND H LEE whose telephone number is 703.305.4019. The examiner can normally be reached on MONDAY-THURSDAY FROM 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD CRISPINO can be reached on 703.308.3853. The fax phone numbers for the organization where this application or proceeding is assigned are 703.305.7718 for regular communications and 703.305.3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0661.


EDMUND H LEE 6/16/03
Examiner
Art Unit 1732

EHL
June 16, 2003